Report of Opinions related to the cause of death of Christina Tahhahwah
Prepared by Dr. Buck Hill
June 18, 2018

Qualifications

I have 15 years of experience as a Board-Certified Anesthesiologist caring for a wide variety of patients in all aspects of surgical and obstetric anesthesia. For the past ten years, I have spent greater than 60 % of the time caring for morbid obese patients undergoing bariatric surgery.

The complexity and challenges presented in providing safe and effective anesthesia for these patients requires knowledge of physiologic and anatomic changes in the morbid obese patient population. The positioning required for some surgeries presents specific and unique challenges in ventilation and perfusion as a result of restriction of movement and changes in perfusion ventilation ratios in the lungs. It is an everyday challenge to recognize and compensate for these changes in the operating room.

I also was a commissioned police officer for just over six years, serving in the EMS division of the Norman Police Department. Responding to emergency and non-emergency calls, supporting patrol officers during warrant services and as a full member of the departments Emergency Response Team [SWAT].

I have not authored any publication in the past 10 years. I have been in the active practice of anesthesiology on a daily basis.

I have not previously testified as an expert witness at trial or by deposition in the last 4 years.

The compensation being paid to me for the study and testimony in this case is the rate of $400.00 per hour.

Documents Reviewed

1. Affidavit Darla Tosta
2. Case review Reade A Quinton MD
3. Prehospital care report Kirks Emergency Service
4. Comanche County Memorial Hospital Emergency Department records
5. Comanche County Memorial Hospital Admission record
6. State of Oklahoma Medical Examiner's Report
7. Private Autopsy Service, LLC report
8. Effect of seated restraint and body size on lung function-PubMed-ncbi.www.ncbi.nlm.nih.gov/m/pubmed/21905575/
9. Video of booking process of Christina Tahhahwah

Case Review and Opinion

EXHIBIT 1

In reviewing the above records, Christina Tahhahwah was booked into the Lawton, Oklahoma City Jail on 11/13/14. At the time of her booking, by their own records, and in agreement with Dr. Quinton, and Dr. Orinoro, it is clear the patient had multiple medical comorbidities; including severe morbid obesity with a BMI of 66, Bipolar disorder, diabetes, cardiac hypertrophy, hypertension, asthma, schizophrenia, and substance abuse. The records also indicate Christina Tahhahwah was well known to the jail staff as they describe previous incarcerations where the decedent was disruptive and combative. The video of Ms. Tahhahwah while being booked into the jail showed she was "short of breath" upon simply walking into the booking area. The jail staff had previous in counters with Christina. They knew her history of bipolar disorder. The average person would be able to recognize Christina's comorbidities.

It is documented in the reports that Christina became disruptive and was handcuffed to the bars of the cell with her hands above her head, seated on the floor of the cell with her legs extended in front. Twice she was found in a slumped on her side position and twice she was returned to the seated leaning forward with hands cuffed above her head position. The third time Christina was found unresponsive with blue or purple discoloration, and resuscitation efforts were initiated.

The findings on autopsy by the state medical examiner and the private autopsy service agree on the preexisting conditions Christina suffered. Their findings are in agreement that an ischemic event occurred and subsequent cardiac arrest. The medical examiner included, "physical restraint in law enforcement custody", in the report.

Considering Christina Tahhahwah was 5'3" and 374 pounds and her bmi was 66, she would be considered severely morbidly obese. In my practice of anesthesiology dealing with severe morbid obese patients frequently in surgeries that require positions other than supine, ie trendelenburg head down, lithotomy position with legs bent at hips in stirrups, prone, and lateral decubitus positions, the changes in ventilation and perfusion in the lungs becomes apparent quickly as these patients have reduced functional residual capacity and desaturate and become hypoxic and hypercarbic very quickly. In surgery, when the patient is continually monitored and supplemental oxygen is used these conditions can be overcome and managed without the patient becoming acidotic and suffering myocardial irritability and or cardiac arrest.

Christina was seated on the floor of the cell with her hands cuffed to the bars above her head which placed her into a seated leaning forward restrained position. This position would lead to a reduction in forced vital capacity [approximately 44%] and reduced tidal volume [the amount of air moved into and out of the lungs with each breath]. When she was found lying over on her side, her legs would have straightened at the hip and allowed better diaphragmatic excursion and increased tidal volumes. In other words, she has assumed a position of comfort in order to breathe easier, but alas she was forced back into the seated leaning forward restrained position. The buildup of carbon dioxide leading to metabolic acidosis as documented in the emergency room documents would be cumulative as it takes longer to clear respiratory acidosis by eliminating co2 when a person is morbidly obese.

The perfusion ventilation mismatch caused by the seated leaned forward restrained position more probably than not contributed to the development of metabolic acidosis and hypoxemia which

lead to sudden cardiac arrest in a patient with severe morbid obesity, hypertensive cardiac hypertrophy, and asthma.

Summary

Upon arriving in the booking area, the video footage clearly shows Christina walking into the area and the quote from statements shows that they recognized that she was "short of breath". From the 911 calls, it was clear that Christina was rambling referring to herself as "Cuda Bang" and most likely fabricating other facts and people. Any reasonable person would recognize this sort of rambling speech as symptoms of a mental illness specifically schizophrenia and/or bipolar disorder.

Christina was obviously severely morbidly obese. The arresting officer recognized that handcuffing Christina was a "bad idea" using "common sense ". He recognized that putting her in a restraint position would compromise her ability to breathe and compromise her circulation to her hands.

The Jail staff had previous experience with Christina and had described her mental illness and disruptive behavior in previous incarcerations. They also were aware of her substance abuse history.

In spite of their knowledge and previous history of Christina, when she became somewhat disruptive instead of transferring her to a more appropriate facility, they handcuffed her to the bars of the cell placing her in a compromising position, seated leaning forward restrained position, more probably than not leading to the respiratory acidosis and cardiac irritability that led to her sudden cardiac arrest and subsequent death.

/s/John B. Buck Hill, D.O.